

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:	)
	)
Ajith K. Kumar et al.	) Group Art Unit: 3663
	) Examiner: Mancho, Ronnie M.
Title: MULTI-LEVEL RAILWAY	) Confirmation No.: 3281
OPERATIONS OPTIMIZATION	)
SYSTEM AND METHOD	)
	)
	)
Serial No.: 10/736,089	)
	)
Filed On: December 15, 2003	) (GE Docket No.: 132250)

Shelton, Connecticut -- February 4, 2010

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

PETITION UNDER 37 CFR 1.181(a) REQUESTING  
WITHDRAWAL OF HOLDING OF ABANDONMENT

Dear Sirs:

In regards to the Notice of Abandonment of 29 December 2009 in the above-noted patent application, Applicants hereby petition that the holding of abandonment be withdrawn, on the grounds that the application was not in fact abandoned.

To explain further, attached as Exhibit A is a true and accurate printout from Public PAIR, showing part of the prosecution history for this case. As indicated, a Non-Final Rejection was issued on 29 May 2009. Subsequently, as also shown on Exhibit A, Applicants filed an Amendment After Non-Final Rejection, on 27 August 2009. As should be appreciated, the Amendment After Non-Final Rejection was filed within the 3-month shortened statutory period for reply to the Non-Final Rejection of 29 May 2009.

Later, Applicants received the Notice of Abandonment of 29 December 2009. Upon Applicants communicating with the Examiner, the Examiner confirmed (upon investigation) that the Amendment After Non-Final Rejection was actually received by the Patent Office, as indicated in Public PAIR, but opined that the Notice of Abandonment may have resulted from the Amendment not being properly classified/indexed and referenced in the PALM system.

Attached as Exhibit B is a true and accurate copy of the Amendment After Non-Final Rejection dated (and submitted on) 27 August 2009. Attached as Exhibit C is a true and accurate copy of an Electronic Acknowledgement Receipt indicating that the Patent Office received Applicants' Amendment After Non-Final Rejection on 27 August 2009.

Considering that Applicants' Amendment After Non-Final Rejection was actually received by the Patent Office within the statutory time period for reply to the Non-Final Rejection of 29 May 2009, the application was never in fact abandoned. Accordingly, Applicants respectfully request that the holding of abandonment be withdrawn and that the Amendment After Non-Final Rejection of 27 August 2009 be considered and acted upon.

To the extent there was any delay in the present submission, this resulted from the undersigned communicating with the Examiner over the course of several weeks in an attempt to remedy this situation without having to file a petition, to no avail.

No fees are believed due for this petition. However, if any fees are due, please charge them, and deposit any refunds, to our deposit account no. 090470. Additionally, if Applicants have misconstrued the proper basis for seeking remedy according to the facts of this case, it is requested that the present submission be treated as a petition under the applicable rule or proviso of the Patent Office.

If any of the information herein is unclear, or if further materials or information is needed, please contact the undersigned.

Respectfully submitted,

Date: February 4, 2010

/John A. Kramer/

John A. Kramer

Reg. No. 46,302

Attorney for Applicants

GE Corporate  
Global Patent Operation  
2 Corporate Drive, Suite 648  
Shelton, CT 06484

Tel.: (203) 944-6710

Fax: (203) 944-6712

E-mail: [john.kramer1@ge.com](mailto:john.kramer1@ge.com)



## United States Patent and Trademark Office

[Home](#) | [Site Index](#) | [Search](#) | [FAQ](#) | [Glossary](#) | [Guides](#) | [Contacts](#) | [eBusiness](#) | [eBiz Alerts](#) | [News](#) | [Help](#)
[Portal Home](#) | [Patents](#) | [Trademarks](#) | [Other](#)

## Patent eBusiness

☒ Patent Application Information Retrieval

☒
☒ [Electronic Filing](#)
☒ [Patent Application Information \(PAIR\)](#)
☒ [Patent Ownership](#)
☒ [Fees](#)
☒ [Supplemental Resources & Support](#)

## Patent Information

☒ [Patent Guidance and General Info](#)
☒ [Codes, Rules & Manuals](#)
☒ [Employee & Office Directories](#)
☒ [Resources & Public Notices](#)

## Patent Searches

☒ [Patent Official Gazette](#)
☒ [Search Patents & Applications](#)
☒ [Search Biological Sequences](#)
☒ [Copies, Products & Services](#)

## Other

☒ [Copyrights](#)
☒ [Trademarks](#)
☒ [Policy & Law](#)
☒ [Reports](#)
☒ [Order Certified Application As Filed](#)
☒ [Order Certified File Wrapper](#)
☒ [View Order List](#)
☒ [Multi-level railway operations optimization system and method](#)

Select New Case	Application Data	Transaction History	Image File Wrapper	Continuity Data	Published Documents	Address & Documents	Agent
-----------------	------------------	---------------------	--------------------	-----------------	---------------------	---------------------	-------

This application is officially maintained in electronic form. To View: Click the desired Document Description. To Download and Print: Check the desired document(s) and click Start Download.

## Available Documents

Mail Room	Date	Document Code	Document Description	Page Count	Select All	Start Download	Clear All
12-29-2009	ABN	ABN	Abandonment	2	<input type="checkbox"/>		
09-10-2009	N570	N570	Communication - Re: Power of Attorney (PTOL-308)	1	<input type="checkbox"/>		
09-10-2009	N570	N570	Communication - Re: Power of Attorney (PTOL-308)	1	<input type="checkbox"/>		
08-27-2009	PA..	PA..	Power of Attorney	2	<input type="checkbox"/>		
08-27-2009	R3.73B	R3.73B	Assignee showing of ownership per 37 CFR 3.73(b)	2	<input type="checkbox"/>		
08-27-2009	N417	N417	EFS Acknowledgment Receipt	2	<input type="checkbox"/>		
08-27-2009	A..	A..	Amendment/Req. Reconsideration-After Non-Final Reject	1	<input type="checkbox"/>		
08-27-2009	REM	REM	Applicant Arguments/Remarks Made in an Amendment	12	<input type="checkbox"/>		
05-29-2009	CTNF	CTNF	Non-Final Rejection	14	<input type="checkbox"/>		

Exhibit A

05-29-2009	SRFW	Search Information including classification, databases and other search related notes	1	<input type="checkbox"/>
05-04-2009	AMSB	Amendment Submitted/Entered with Filing of CPA/RCE	1	<input type="checkbox"/>
05-04-2009	CLM	Claims	7	<input type="checkbox"/>
05-04-2009	REM	Applicant Arguments/Remarks Made in an Amendment	7	<input type="checkbox"/>
05-04-2009	WFEE	Fee Worksheet (PTO- 875)	2	<input type="checkbox"/>
05-04-2009	N417	EFS Acknowledgment Receipt	2	<input type="checkbox"/>
05-04-2009	RCEX	Request for Continued Examination (RCE)	2	<input type="checkbox"/>
05-04-2009	WFEE	Fee Worksheet (PTO- 875)	1	<input type="checkbox"/>
04-23-2009	CTAV	Advisory Action (PTOL- 303)	3	<input type="checkbox"/>
04-03-2009	A NE	Amendment After Final	1	<input type="checkbox"/>
04-03-2009	CLM	Claims	7	<input type="checkbox"/>
04-03-2009	REM	Applicant Arguments/Remarks Made in an Amendment	7	<input type="checkbox"/>
04-03-2009	WFEE	Fee Worksheet (PTO- 875)	2	<input type="checkbox"/>
04-03-2009	N417	EFS Acknowledgment Receipt	2	<input type="checkbox"/>
04-03-2009	WFEE	Fee Worksheet (PTO- 875)	1	<input type="checkbox"/>
12-12-2008	CTFR	Final Rejection	15	<input type="checkbox"/>
12-12-2008	892	List of references cited by examiner	1	<input type="checkbox"/>
12-12-2008	SRFW	Search Information including classification, databases and other search related notes	1	<input type="checkbox"/>
12-12-2008	FWCLM	Index of Claims	1	<input type="checkbox"/>

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:	)
	)
Ajith K. Kumar et al.	) Group Art Unit: 3663
	) Examiner: Mancho, Ronnie M.
Title: MULTI-LEVEL RAILWAY	) Confirmation No.: 3281
OPERATIONS OPTIMIZATION	)
SYSTEM AND METHOD	)
	)
Serial No.: 10/736,089	)
	)
Filed On: December 15, 2003	) (GE Docket No.: 132250)

Shelton, Connecticut – August 27, 2009

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE TO OFFICE ACTION**

Dear Sir:

In response to the Non-Final Rejection mailed on May 29, 2009, reconsideration is requested in view of the Remarks set forth herein.

**Remarks** commence on page 2.

**REMARKS****I. Summary**

Claims 1, 3, 8, 14-16, 18-22, 26, 50, 52-58, 62 and 76 are pending in the subject Application. None of the pending claims has been amended in response to the outstanding Non-Final Rejection, in which the following issues were raised by the Examiner:

- Claims 1, 3 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 5,420,883 to Swenson *et al.* ("Swenson"), in view of United States Patent No. 7,073,753 to Root *et al.* ("Root"); and
- Claims 14-16, 18-22, 26, 50, 52-58, 62 and 76 are rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 5,828,979 to Polivka *et al.* ("Polivka").

In view of the following Remarks, Applicants respectfully submit that Claims 1, 3, 8, 14-16, 18-22, 26, 50, 52-58, 62 and 76 are in condition for allowance, and prompt entry to this effect is respectfully requested.

**II. Claim Rejections Under 35 U.S.C. § 103(a)**

The Examiner rejected Claims 1, 3 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Swenson and Root. Applicants respectfully disagree.

Applicants submit that the Examiner has erroneously deemed Claims 1, 3 and 8 obvious in view of Swenson and Root. Claims 1, 3 and 8 recite, *inter alia*, a first processor configured to control an operation of railroad infrastructure, including

servicing operations, wherein the first processor controls servicing operations in accordance with generated output instructions by issuing work orders to service facilities for refueling trains, scheduling work bays, work crews and tools, or ordering parts. However, such features are neither described nor suggested by either Swenson or Root.

Swenson describes communications devices and networks for tracking and controlling train movements, and for maintaining safety buffers between trains. Indeed, Swenson expressly states that its devices and networks have the “two primary purposes” of determining real-time positions of trains with high resolution and transferring command information from control stations to trains at high data transfer rates, as well as “two major functions” of headway minimization and regenerative breaking. *See* Swenson, col. 3, line 22-26; col. 2, line 65 – col. 3, line 4. The systems described in Swenson are expressly intended to overcome the limitations and inefficiencies of prior art inductive loop, tag systems, dead reckoning and Global Positioning System (GPS) tracking systems, as well as human-based and automated controls techniques. *See* Swenson, col. 1, line 47-col. 2, line 62. In Swenson, the devices and networks divide transportation corridors into control zones, and manage train operations from control stations, which issue movement commands to ensure that trains come to complete stops before entering respective zones along their paths. *See* Swenson, col. 4, lines 51-61; col. 5, lines 3-13. On-board train controllers implement commands issued by the control station and then deliver specific control signals to the train’s motors, brakes and doors. *See* Swenson, col. 7, lines 16-26.

However, Swenson fails to describe or even suggest controlling servicing operations or issuing work orders, as is recited in Claim 1, 3 and 8. Swenson is solely



focused on maintaining spatial separation between trains and improving data transfer rates between trains and stations, and does not mention (or even hint at) scheduling work bays, scheduling work crews, scheduling tools or ordering parts, as is recited in Claims 1, 3 and 8. In fact, none of the control messages contemplated by Swenson has anything to do with managing, ordering or scheduling servicing operations, as is recited in Claims 1, 3 and 8. *See* Swenson, col. 12.

Notably, Root cannot overcome Swenson's deficiencies in this regard. Root describes an integrated train control system that integrates then-existing control systems that were developed by New York Air Brake Corporation, the assignee of that patent, *see* Root, col. 1, lines 20-22, or "equivalent systems" to those then-existing systems. *See* Root, col. 11, lines 6-10. The integrated train control system of Root consists of specific, proprietary "building blocks," including locomotive equipment, braking equipment, an end-of-train device and power and communications distribution systems, *see* Root, col. 3, lines 47-50, with the locomotive equipment further comprising a power supply, communications controller, brake controller, operator interface unit and identification module. Root, col. 3, lines 51-55. While Root does briefly reference a "Smart Car" system, which detects train car defects such as hot bearings, flat wheels or wheels-off-rail, Root does not teach, describe or suggest a system for controlling servicing operations, issuing work orders, directing refueling operations, scheduling work bays, scheduling work crews, scheduling tools, or ordering parts, as are recited in Claims 1, 3 and 8. Indeed, Root is solely focused on integrating existing train control systems, and is wholly silent as to servicing trains.

“To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” M.P.E.P. § 706.02(j), *citing Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Inter. 1985). Clearly, for the reasons set forth above, Swenson and Root fail to suggest, either expressly or impliedly, the novel controlling of servicing operations and issuing work orders by a first processor, as is recited in Claim 1, 3 and 8.

Because the references themselves lack an express or implied suggestion of the inventions recited in Claims 1, 3 and 8, in order to reject these claims under 35 U.S.C. § 103(a), the Examiner was required to “present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” Applicants respectfully submit that the Examiner has failed to meet his burden in this regard. Although the Examiner asserts, *ipse dixit*, that Swenson discloses a first processor configured to control an operation of a railroad infrastructure, including servicing operations, *see* Office Action, at 2-3, the portions of Swenson cited by the Examiner – and the disclosure of Swenson as a whole – utterly lack any reference to servicing operations; directing refueling operations; scheduling work bays, work crews or tools; and ordering parts.

Moreover, the Examiner’s obligation to set forth a “convincing line of reasoning” as to why a claimed invention would be obvious is mandatory, not optional. Indeed, the Manual for Patent Examining Procedure clearly states that “[t]he key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed

invention would have been obvious,” and that the “analysis supporting a rejection under 35 U.S.C. § 103 should be made explicit.” M.P.E.P. § 2141 (emphasis added). Thus, the absence of such an explicit articulation is fatal to the Examiner’s rejections of Claims 1, 3 and 8. Indeed, in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 U.S.P.Q.2d 1385 (2007), the United States Supreme Court noted that “rejections on obviousness cannot be sustained by mere conclusory statements,” such as those made by the Examiner with respect to the teachings of Swenson and Root, and “instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.* at 418, 82 USPQ2d at 1396, *quoting In re Kahn*, 441 F.3d 977, 988, 78 U.S.P.Q.2d 1329, 1336 (Fed. Cir. 2006) (emphasis added). Because the Non-Final Rejection lacks any such articulated reasoning, this type of rejection under 35 U.S.C. § 103(a) cannot stand.

For the foregoing reasons, Applicants respectfully submit that Claims 1, 3 and 8 are not obvious in view of the proposed combination of Swenson and Root, and respectfully request that the rejections thereof be withdrawn.

### **III. Claim Rejections Under 35 U.S.C. § 102(b)**

The Examiner rejected Claims 14-16, 18-22, 26, 50, 52-58, 62 and 76 under 35 U.S.C. § 102(b) as being anticipated by Polivka. Again, Applicants respectfully disagree.

Applicants submit that Claims 14-16, 18-22, 26, 50, 52-58, 62 and 76 are patentably distinct over Polivka. Claim 14 recites a multi-level system for managing a railway system and its operational components, including, *inter alia*, a first level configured to control a servicing operation by issuing work orders comprising refueling

instructions, scheduling a work bay, scheduling a work crew, scheduling a tool, or ordering a part, to a service facility. Claim 50 similarly recites a system for management of a multi-level railway system and its operational components, comprising a first level including first level operational parameters defining changes in operational characteristics of service facilities of the railway system and data of the first level, said characteristics comprising availability of cost of fuel, work crews, maintenance bays, tools, replacement locomotives or parts. Because Polivka fails to describe the systems recited in Claims 14 and 50, Polivka does not anticipate these claims.

Polivka describes methods and systems for controlling the movement of trains through a network of track in a multiple route railway system. *See* Polivka, col. 1, lines 8-19. These methods and systems are intended to better hold trains to schedules and to respond to disruptions in service by exerting precise control over their movements. *See* Polivka, col. 1, lines 32-37. The methods and systems include a scheduler, a dispatcher, a safety insurer and a train controller, and instructions and controls are sent from the central system in the form of "movement plans," which are developed by the dispatcher for the entire system, based on a coarse resource schedule prepared by the scheduler. *See* Polivka, col. 4, lines 38-67. Instructions to individual trains, known as "trip plans," are based on the movement plan, and may contain station data, wind and track conditions, position, time, velocity, motor current, throttle position and brake pipe pressures. *See* Polivka, col. 7, lines 30-49.

The movement plan of Polivka is defined as a "timeline projection of the position of the trains throughout the plan and takes into account the physical forces which are expected to occur during the actual carrying out of the plan," such forces including

inertia, mass, position, direction, weight, aerodynamics, length, available power, traction, grade and curvature. *See* Polivka, col. 5, lines 8-29, lines 46-67. When unforeseen conditions occur within the railway system, the only recourse taught, described or suggested within Polivka is to modify the movement plan accordingly. *See* Polivka, col. 7, lines 3-23. However, neither the movement plan, the trip plan, nor any other element of the systems and methods described in Polivka controls a servicing operation or issues work orders for service facilities for refueling, scheduling service, or ordering parts, as is recited in Claim 14. Nor does any aspect of Polivka describe operational parameters such as the availability or cost of fuel, work crews, maintenance bays, tools, replacement locomotives or parts, as is recited in Claim 50. The portions of Polivka cited by the Examiner as describing these elements, including columns 4, 5 and 6, relate to the controlled movement of trains in various conditions, but lack any teaching, suggestion or description of servicing operations or operational parameters such as scheduling services, ordering parts or directing refueling.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Because Polivka fails to disclose a multi-level system for managing a railway system and its operational components, including a first level configured to control a servicing operation by issuing work orders to a service facility, as is recited in Claim 14, or a system for management of a multi-level railway system and its operational components, comprising a first level including first level operational parameters defining changes in operational characteristics of service facilities of the railway system and data

of the first level, said characteristics comprising availability of cost of fuel, work crews, maintenance bays, tools, replacement locomotives or parts, as is recited in Claim 50, as amended, Polivka cannot anticipate these claims.

Accordingly, Claims 14 and 50 are believed to be allowable over Polivka and the prior art of record, and prompt entry to this effect is respectfully requested. Moreover, because Claims 15, 16, 18 through 22 and 26 depend from Claim 14, and because Claims 52 through 58, 62 and 76 depend from Claim 50, it is respectfully submitted that these claims are allowable, as well.

#### **IV. Applicants' Comments Regarding Response to Arguments**

In the "Response to Arguments" section of the Office Action, the Examiner admonished Applicants to consider the prior art as a whole. Applicants have thoroughly reviewed the cited prior art, and aver that even when the prior art is considered as a whole or in combination, it fails to show or suggest the subject matter recited in the pending claims, for the reasons set forth above. With regard to specific sections of Polivka identified by the Examiner, and further to the above:

- FIGS. 2 and 4-14 show flowcharts and diagrams of systems for controlling the movement of trains through a network of track in a multiple route railway system. However, FIGS. 2 and 4-14 fail to teach, describe or suggest, either expressly or impliedly, controlling servicing operations or issuing work orders for service facilities for refueling, scheduling service, or ordering parts, or operational parameters such as the availability or cost

of fuel, work crews, maintenance bays, tools, replacement locomotives or parts.

- Col. 4, lines 39-67, generally describes a train control system including a planner/scheduler that develops a coarse schedule and a planner/dispatcher that creates a movement plan and dispatches it to trains, but fails to teach, describe or suggest: controlling servicing operations or issuing work orders for service facilities for refueling, scheduling service, or ordering parts; operational parameters such as the availability or cost of fuel, work crews, maintenance bays, tools, replacement locomotives or parts; a first level configured to control servicing operations, including issuing work orders for implementing servicing operations; a second level that is a sub-level of the first level; or controlling the operation within these levels based on first level and second level operational parameters.
- Col. 5, lines 1-64, describes the development of movement plans, or “timeline projections of the position[s] of trains,” *see* col. 5, lines 8-9, based on physical forces and block boundaries, but fails to teach, describe or suggest: controlling servicing operations or issuing work orders for service facilities for refueling, scheduling service, or ordering parts; operational parameters such as the availability or cost of fuel, work crews, maintenance bays, tools, replacement locomotives or parts; a first level configured to control servicing operations, including issuing work orders for implementing servicing operations; a second level that is a sub-level of

the first level; or controlling the operation within these levels based on first level and second level operational parameters.

- Col. 6, lines 36-64, describes the transmission of trip plans, “which consist[] of as much of the movement plan as is applicable to” a respective train, and determining the position of a respective train, but fails to teach, describe or suggest: controlling servicing operations or issuing work orders for service facilities for refueling, scheduling service, or ordering parts; operational parameters such as the availability or cost of fuel, work crews, maintenance bays, tools, replacement locomotives or parts; a first level configured to control servicing operations, including issuing work orders for implementing servicing operations; a second level that is a sub-level of the first level; or controlling the operation within these levels based on first level and second level operational parameters.
- Col. 7, lines 3-67, describes transmitting movement information from a train to the dispatch, or the detailed composition of a trip plan, but fails to teach, describe or suggest: controlling servicing operations or issuing work orders for service facilities for refueling, scheduling service, or ordering parts; operational parameters such as the availability or cost of fuel, work crews, maintenance bays, tools, replacement locomotives or parts; a first level configured to control servicing operations, including issuing work orders for implementing servicing operations; a second level that is a sub-level of the first level; or controlling the operation within these levels based on first level and second level operational parameters.



- Col. 8, lines 1-67, generally describes operating signals, throttles, brakes and power consumption, but fails to teach, describe or suggest: controlling servicing operations or issuing work orders for service facilities for refueling, scheduling service, or ordering parts; operational parameters such as the availability or cost of fuel, work crews, maintenance bays, tools, replacement locomotives or parts; a first level configured to control servicing operations, including issuing work orders for implementing servicing operations; a second level that is a sub-level of the first level; or controlling the operation within these levels based on first level and second level operational parameters.

## **V. Conclusion**

The pending claims are believed to be allowable over the prior art of record. Accordingly, it is respectfully requested that this Application be allowed, and a Notice of Allowance issued. If the Examiner believes that a teleconference with Applicants' attorney would be advantageous to the disposition of this case, or if it would otherwise facilitate the examination of this Application, the Examiner is cordially invited to contact the undersigned at the telephone number below.

Respectfully submitted

Date: August 27, 2009

/ John A. Kramer /  
John A. Kramer  
Reg. No. 46,302  
Attorney for Applicants

GE Global Patent Operation  
P.O. Box 861  
2 Corporate Drive, Suite 648  
Shelton, CT 06484

Tel.: (203) 944-6710  
Fax: (203) 944-6712  
E-mail: john.kramer1@ge.com

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**POWER OF ATTORNEY  
OR  
REVOCATION OF POWER OF ATTORNEY  
WITH A NEW POWER OF ATTORNEY  
AND  
CHANGE OF CORRESPONDENCE ADDRESS**

Application Number	10/736089
Filing Date	December 15, 2003
First Named Inventor	Ajith K. KUMAR
Title	MULTI-LEVEL RAILWAY OPERATION
Art Unit	3663
Examiner Name	Ronnie M. MANCHO
Attorney Docket Number	132250

I hereby revoke all previous powers of attorney given in the above-identified application.

☐ A Power of Attorney is submitted herewith.

OR

☒ I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

52082

OR

☐ I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

Practitioner(s) Name	Registration Number

Please recognize or change the correspondence address for the above-identified application to:

☒ The address associated with the above-mentioned Customer Number.

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name:

Address

City

State

Zip

Country

Telephone

Email

I am the:

☐ Applicant/Inventor.

OR

☒ Assignee of record of the entire interest. See 37 CFR 3.71Statement under 37 CFR 3.73(b) (Form PTO/SB/96) submitted herewith or filed on December 15, 2003**SIGNATURE of Applicant or Assignee of Record**

Signature	/John A. Kramer/	Date	August 27, 2009
Name	John A. Kramer	Telephone	203 944-6710
Title and Company	Patent Counsel		

**NOTE:** Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.☐ \*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Ajith K. Kumar et alApplication No./Patent No.: 10/736,089Filed/Issue Date: December 15, 2003Titled: MULTI-LEVEL RAILWAY OPERATIONS OPTIMIZATION SYSTEM AND METHOD

General Electric Company, a corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest in;
2. ☐ an assignee of less than the entire right, title, and interest in  
(The extent (by percentage) of its ownership interest is \_\_\_\_\_ %); or
3. ☐ the assignee of an undivided interest in the entirety of (a complete assignment from one of the joint inventors was made)  
the patent application/patent identified above, by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 014831, Frame 0081, or for which a copy therefore is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☒ As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/John A. Kramer/

August 27, 2009

Signature

Date

John A. Kramer

Patent Counsel

Printed or Typed Name

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

**Electronic Acknowledgement Receipt****Exhibit C**

<b>EFS ID:</b>	5964250
<b>Application Number:</b>	10736089
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	3281
<b>Title of Invention:</b>	Multi-level railway operations optimization system and method
<b>First Named Inventor/Applicant Name:</b>	Ajith K. Kumar
<b>Customer Number:</b>	00321
<b>Filer:</b>	John Kramer/Elizabeth MARTin
<b>Filer Authorized By:</b>	John Kramer
<b>Attorney Docket Number:</b>	132250NP/GETS 5314.1
<b>Receipt Date:</b>	27-AUG-2009
<b>Filing Date:</b>	15-DEC-2003
<b>Time Stamp:</b>	13:39:06
<b>Application Type:</b>	Utility under 35 USC 111(a)

**Payment information:**

Submitted with Payment	no
------------------------	----

**File Listing:**

<b>Document Number</b>	<b>Document Description</b>	<b>File Name</b>	<b>File Size(Bytes)/ Message Digest</b>	<b>Multi Part /.zip</b>	<b>Pages (if appl.)</b>
1	Applicant Arguments/Remarks Made in an Amendment	132250ResponsetoNonFinalRejectionfinal.pdf	1298734 fa11c8acade719504c0069d3c16b176a9ea9570	no	13

**Warnings:****Information:**

2	Power of Attorney	132250RevocationandPOAFinal.pdf	345735 c0b020567d9f49d40ca4499cf6f7a58f5c7b2dc	no	2
<b>Warnings:</b>					
<b>Information:</b>					
3	Assignee showing of ownership per 37 CFR 3.73(b).	132250StatementUnder37Final.pdf	340358 121b8263a8b1924c2137be403328df7584c0b8b6	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			1984827		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					